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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,677	09/07/2000	Michael Douglas	65229-0010	1937

7590 11/23/2004  
Cary W. Brooks  
General Motors Corporation--Legal Staff  
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Detroit, MI 48265-3000

EXAMINER

GANDHI, JAYPRAKASH N

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/656,677

**Applicant(s)**

DOUGLAS ET AL.

**Examiner**

Jayprakash N Gandhi

**Art Unit**

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-42 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Martin et al. (U. S. Patent 6,253,115).

Regarding claims 1-20 and 28-35, Martin discloses all the claimed invention of a method for designing and building a manufacturing system, columns 1 and 2, lines 55-67 and 1-7 respectively,

FIG. 1 is a flowchart of a design for six sigma (DFSS) process that may be implemented using the present invention. The overall DFSS process of FIG. 1 is divided into four sub-processes labeled Identify, Design, Optimize and Validate. Each sub-process includes sub-steps. The Identify sub-process includes sub-steps 102 and 104. The Design sub-process includes sub-steps 106-112. The Optimize sub-process includes sub-steps 114-126. The Validate sub-process includes sub-steps 128-134. The DFSS process shown in FIG. 1 is useful for improving the process of designing a product or procedure. The invention can also be applied to other six sigma processes such as the Measure, Analyze, Improve and Control (MAIC) process used for improving processes (such as manufacturing processes or business processes). The invention is a system for implementing a design for six sigma process and may be used with other six sigma processes or similar processes.

It is to be noted that Martin positively discloses of having reviewing (IDENTIFY, MEASURE), conducting (DESIGN, ANALYZE), validating (CONTROL) as well as Optimizing for improvement before validating. The presence of the claimed invention of designing and building a manufacturing system is old and well known as discloses

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by Martin and would have been obvious to one of ordinary skill in the art to modify as required to improve quality, safety and efficiency and the same time reduce cost, and downtime.

Regarding claims 21-27 and 36-42, Martin discloses use of executable tools (ABSTRACT), which can be used for computer readable storage device to expedite the process and reduce human errors.

### ***Response to Arguments***

2. Applicant's arguments filed September 14, 2004 have been fully considered but they are not persuasive.

Regarding the applicant's Remarks (page 10), that "nowhere does Martin teach or suggest reviewing a manufacturing system design", the examiner directs the applicant's attention to column 1, lines 5-25,

The invention relates to a system for implementing a design for six sigma (DFSS) process. For any process (business, **manufacturing**, service, etc.), the sigma value is a metric that indicates how well that process is performing. The higher the sigma value, the better the output. Sigma measures the capability of the process to perform defect-free-work, where a defect is synonymous with customer dissatisfaction. With six sigma the common measurement index is defects-per-unit where a unit can be virtually anything—a component, a part of a jet engine, an administrative procedure, etc. The sigma value indicates how often defects are likely to occur. As sigma increases, customer satisfaction goes up along with improvement of other metrics (e.g., cost and cycle time).

The six sigma methodology has been used by a number of companies such as Motorola Semiconductors, Texas Instruments, Allied Signal and Digital Corporation. All of these companies use this process for a specific application such as **semiconductor manufacturing** in the case of Motorola and Texas Instruments. A drawback to specific applications of the six sigma process is that there is a lack of flexibility to allow for the existing implementation to be applied to other business processes.

As clearly stated above the process of Martin can be manufacturing process, and as shown in figure 1A, "IDENTIFY" can be taken as "a design review data" in very broad term, therefore Martin does meet the manufacturing system requirement.

As per requirement of MPEP 2144.03, Talbott et al. (U. S. Patent 5,355,317), figure 2, clearly discloses the review (34) of a manufacturing system design (32), with developments (38, 42) and validation (56).

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brown et al. disclose related art.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jayprakash N Gandhi whose telephone number is 571-272-3740. The examiner can normally be reached on 6:30-5:00 (Mon. - Thu.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jayprakash N Gandhi  
Primary Examiner  
Art Unit 2125

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